

2.4 EXISTING ROADWAY SYSTEM

This section provides details on existing traffic conditions, roadway characteristics and the current functionality of roadways within the study area. Data items used in this overview were obtained from the FTA's 2005 Highways Performance Monitoring System (HPMS). The tables display segment information such as current traffic volumes, roadway classifications, and percent trucks. Figures 2-26, 2-27 and 2-28 show the existing transportation system for each of the three focus areas.

2.4.1 State Highways

The Eastern Framework Study Area includes portions of 35 state routes covering approximately 2000 miles, Table 2-23 lists the state routes within the study area.

The Annual Average Daily Traffic (AADT) for these routes range from a high of 23,457 vehicles on SR-260 in Payson to a low of 404 on SR-261 in Eager. The majority of truck travel occurs on I-10 and along highways that travel through the northern communities to Show Low, Eager and Springerville. The majority of the state highways segments in this area are classified as Rural Minor Collectors.

2.4.2 Other Principal Arterial Roadways by Focus Area

The state highway system serves as principal arterials within most of the Eastern Framework Study Area. The state routes, as they pass through the many small communities in the Eastern Arizona study area, function as main streets providing access to the central commercial areas and also providing connectivity throughout the community. Within the Eastern Framework Study Area there are very few Principal Arterial roadways that are not also state routes.

2.4.3 Study Area Roadway Functional Classification Systems

State Highways

The state highways within the study area fall within one of these classifications based on traffic volume and/or design:

- Rural Major Collector
- Rural Minor Arterial
- Rural Minor Collector
- Rural Principal Arterial
- Rural Principal Arterial Interstate
- Urban Principal Arterial

The majority (40 percent) of the state highways within the study area are classified as Rural Minor Collectors. The interstates are classified as Rural Principal Arterial Interstates with full access control and unprotected medians. Segments categorized as Rural Principal Arterial Interstate or Urban Principal Arterial have four through lanes while all other classifications have two through lanes. Urban classifications are found on those roadways running through the southeast section of the state in Cochise and Santa Cruz Counties – State Routes 89, 90 and 92.

Local Roadway Systems

Local roadway systems within the Eastern Framework Study Area consist largely of two-lane roadways considered either Minor Arterials or Major Collectors, which provide access to local or neighborhood streets. County roadways provide sub-regional connections often connecting between state routes.

Within the Mogollon Rim Focus Area the major local roads include:

- Payson Area: Tyler Parkway, Miracle Road, Longhorn Road
- Show Low / Pinetop-Lakeside / Snowflake / Taylor Area: Bourdon Ranch Road, Concho Highway, Penrod Road, Pinedale Road, Pulp Mill Road

The Copper Country Focus Area includes the following major local roads:

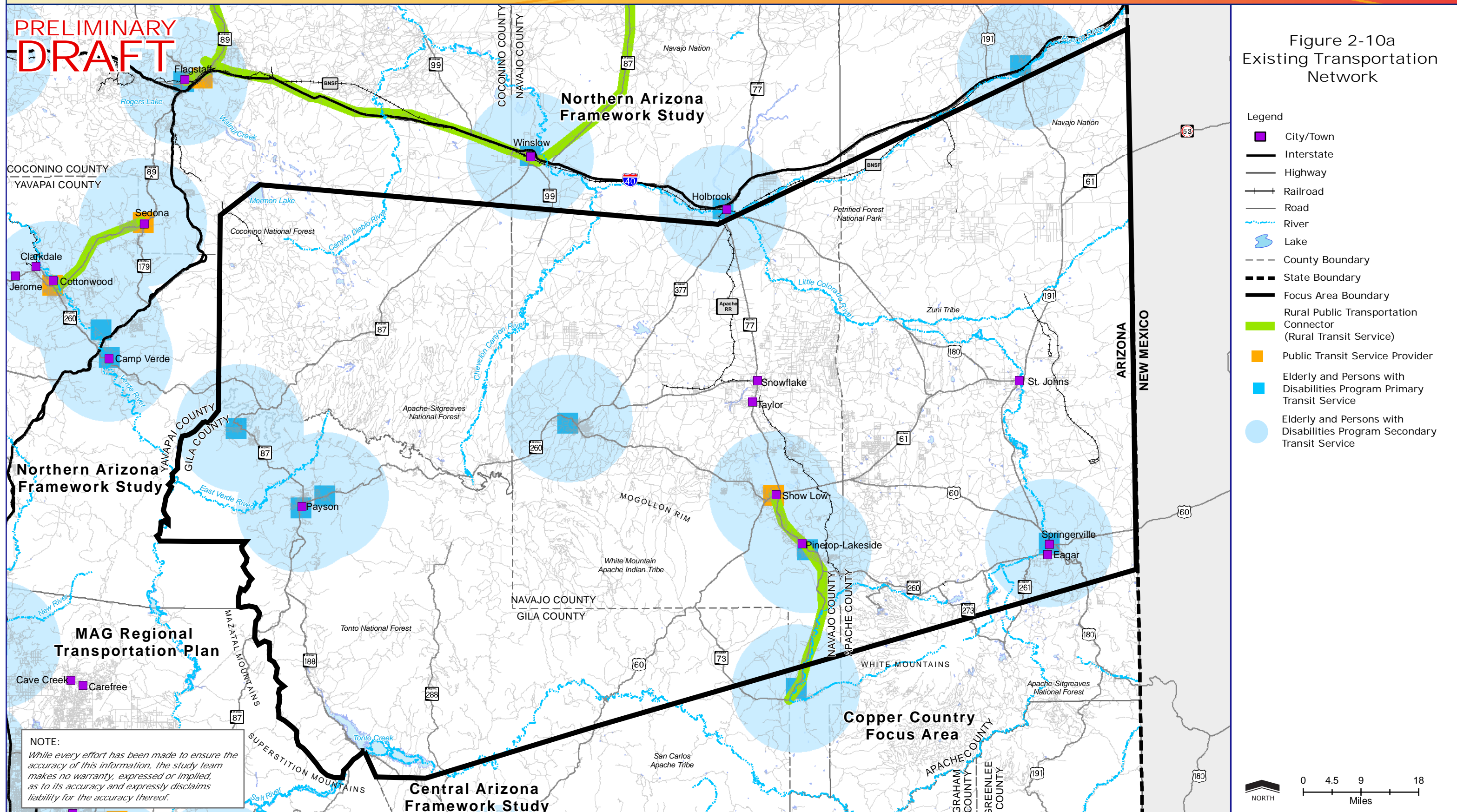
- Safford Area: River Road, Safford-Sanchez Road, Reay Lane, Airport Road
- San Carlos Area: Coolidge Dam Road, BIA 008

The Cochise-Santa Cruz Focus Area includes the following major local roads:

- Sierra Vista Area: Fry Boulevard, Charleston Road, Buffalo Soldier Trail, 7th Street, Coronado Drive,
- Nogales Area: Pendleton Drive, River Road, Ruby Road, Grand Avenue, Western Avenue, Mariposa Road
- Bisbee Area: Naco Highway, Arizona Street, Bisbee Road
- Douglas Area: 15th Street, Leslie Canyon Road, A Avenue, Chino Road
- Other parts of Cochise County: Dragoon Road, Kansas Settlement Road, Davis Road, Central Highway, Frontier Road



Regional Framework Study: Eastern Arizona, Mogollon Rim Focus Area



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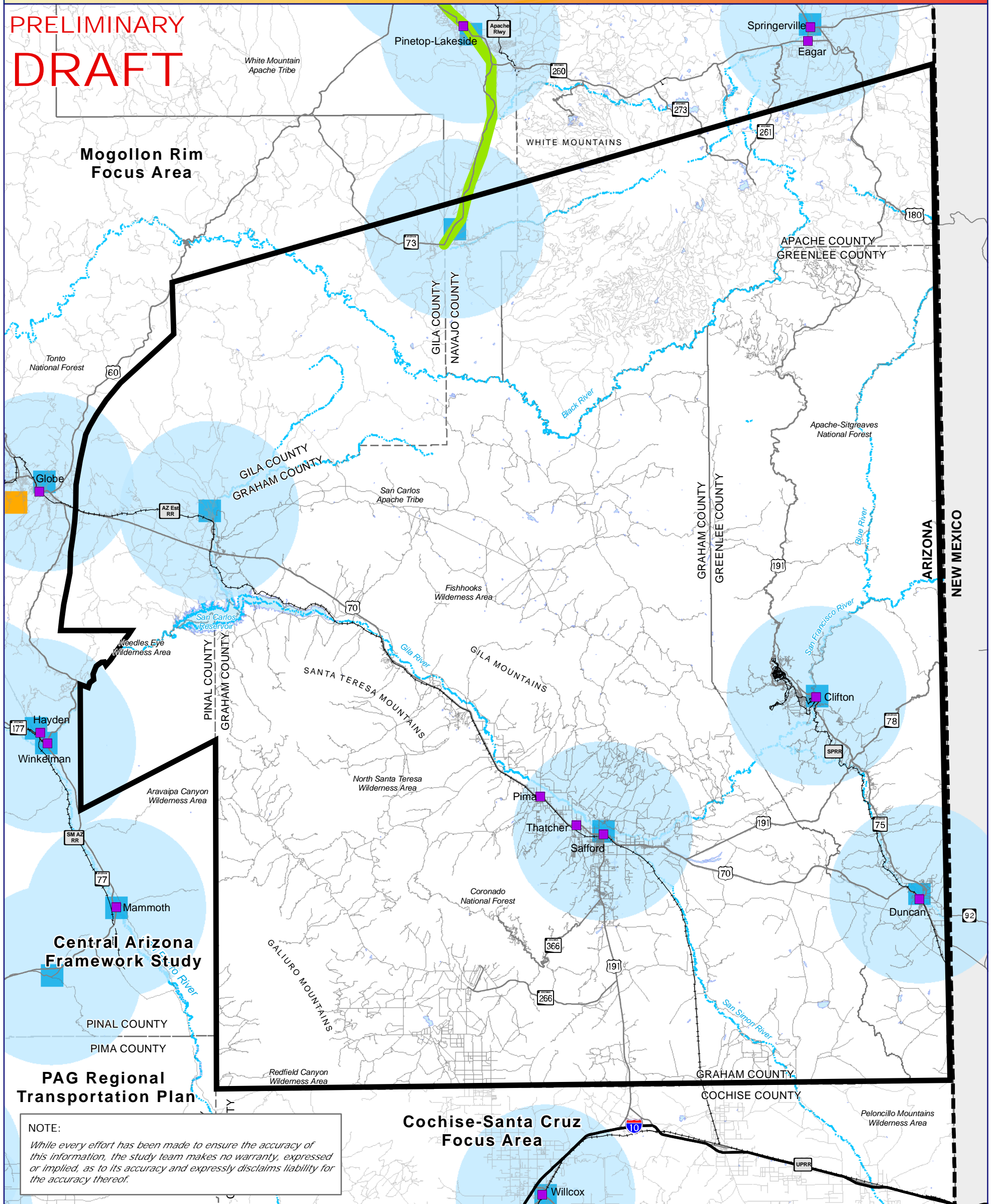


Figure 2-10b Existing Transportation Network

Legend

- | | | |
|------------|---|---|
| City/Town | County Boundary | Elderly and Persons with Disabilities Program Secondary Transit Service |
| Interstate | State Boundary | |
| Highway | Focus Area Boundary | |
| Railroad | Rural Public Transportation Connector (Rural Transit Service) | |
| Road | Public Transit Service Provider | |
| River | Elderly and Persons with Disabilities Program Primary Transit Service | |
| Lake | | |



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Miles



Table 2-23 – Study Area State Routes

Route	Func. Class	From	To	Length (miles)	Access Control	No. of Through Lanes	Median Type	On-Street Parking
I-10	Rural Principal Arterial Interstate	Cochise/ Pima CB	Cavot Rd	132.3	Full access control	4	Unprotected	Not reported
I-19	Rural Principal Arterial Interstate	Pima/ Santa Cruz CB	Western Ave	74.8	Full access control	4	Unprotected	No parking allowed or none available
SR-180A	Rural Minor Collector	US-180	SR-61	11.2	No access control	2	None	Not reported
SR-181	Rural Major Collector	US-191	M065+0.04	27.0	No access control	2	None	Not reported
SR-186	Rural Major Collector	I-10 Exit 340 Ramp	SR-181	32.7	No access control	2	None	Not reported
SR-188	Rural Major Collector	SR-87	School House Pt	40.0	No access control	2	None	Not reported
SR-189	Urban Principal Arterial	SR-19B	International Boarder	4.0	No access control	4	None	No parking allowed or none available
SR-260	Rural Principal Arterial	Coconino/ Yavapai CB	US-180	158.8	No access control	2	None	Not reported
SR-261	Rural Minor Collector	SR-260	SR-273	17.9	No access control	2	None	Not reported
SR-266	Rural Minor Collector	Bonita Willcox Rd	US-191	22.2	No access control	2	None	Not reported
SR-273	Rural Minor Collector	SR-260	M396+0.90	19.3	No access control	2	None	Not reported
SR-277	Rural Minor Collector	SR-260	SR-77	31.9	No access control	2	None	Not reported
SR-288	Rural Minor Collector	S 188 Sta. 0+00.00Ah d +0.88	M311+0.90	51.5	No access control	2	None	Not reported
SR-289	Rural Minor Collector	M010+0.83	I-19	10.3	No access control	2	None	Not reported
SR-366	Rural Minor Collector	M143+0.20	US-191	28.2	No access control	2	None	Not reported
SR-373	Rural Minor Collector	SR-260	M390+0.21	4.5	No access control	2	None	Not reported
SR-377	Rural Major Collector	SR-77	SR-277	33.8	No access control	2	None	Not reported
SR-473	Rural Minor Collector	SR-260	M009+0.97	9.9	No access control	2	None	Not reported
SR-61	Rural Major Collector	US-60	AZ/NM Stateline	42.9	No access control	2	None	Not reported
SR-73	Rural Major Collector	US-60	SR-260	47.6	No access control	2	None	Not reported
SR-75	Rural Major Collector	US-191	US-70	19.4	No access control	2	None	Not reported
SR-77	Rural Principal Arterial	SR-377	US-60	45.5	No access control	2	None	Not reported
SR-78	Rural Minor Collector	US-191	Greenlee CB	19.5	No access control	2	None	Not reported
SR-80	Rural Minor Arterial	SR-10B	AZ/NM Stateline	120.1	No access control	2	None	Not reported
SR-82	Rural Major Collector	SR-19B	SR-80	65.7	No access control	2	None	Not reported

Route	Func. Class	From	To	Length (miles)	Access Control	No. of Through Lanes	Median Type	On-Street Parking
SR-83	Rural Minor Collector	Pima/ Santa Cruz CB	Cochise/ Santa Cruz CB	31.6	No access control	2	None	Not reported
SR-87	Rural Major Collector	Cochise/ Navajo CB	Gila/ Maricopa CB	110.7	No access control	2	None	Not reported
SR-88	Rural Minor Collector	M241+0.58	M229+0.24	12.1	No access control	2	None	Not reported
SR-90	Urban Principal Arterial	I-10	SR-80	47.3	No access control	4	None	No parking allowed or none available
SR-92	Urban Principal Arterial	SR-90	SR-80	33.9	No access control	4	None	No parking allowed or none available
SR-99	Rural Minor Collector	M027+0.50	Territorial Rd	8.8	No access control	2	None	Not reported
US-180	Rural Minor Arterial	M307+0.30	AZ/NM Stateline	123.0	No access control	2	None	Not reported
US-191	Rural Major Collector	M382+0.00	5th St	283.3	No access control	2	None	Not reported
US-60	Rural Minor Arterial	M284+0.00	AZ/NM Stateline	117.1	No access control	2	None	Not reported
US-60	Rural Minor Arterial	M284+0.00	AZ/NM Stateline	117.1	No access control	2	None	Not reported

2.4.4 Existing Traffic Volumes and Percent Trucks

The information for the roadway segments displayed in Table 2-24 has been sectioned by community to further comprehend the levels of traffic and percentage of truck traffic within the focus areas.

Overall traffic volume is heaviest along the major roadways within Payson. The segments of SR-87 and SR-260 within the town limits reported AADT numbers of 23,451 on and 19,461, respectively. In the southeast section of the state, areas of high activity include the I-10 in Benson (20,405), SR-92 in Sierra Vista (21,833) and in Nogales I-19 and SR-189 (16,271 and 16,690).

Not surprisingly, I-10 – a major connector between the East and West Coast – recorded the highest percentage of daily average multi-unit truck traffic (30.3 percent). Other segments with high truck activity include SR-277 in Snowflake, US-60 in Show Low and US-180 which travels through Springerville and Eagar.

Table 2-24 – Study Area Annual Average Daily Traffic and Percent Trucks

Agency	Community	From	To	AADT	Year	Source	Length (Miles)	Percent Trucks
I-10								
Arizona Department of Transportation	Benson	M300+0.20	M307+0.17	20,405	2004	HPMS	7.5	28.5%
	Willcox	Airport Road	Willcox Town Boundary	14,450	2004	HPMS	3.0	32.0%
I-19								
Arizona Department of Transportation	Nogales	SR-19B	International Border	16,271	2004	HPMS	5.7	9.0%
SR-186								
Arizona Department of Transportation	Willcox	Virginia Avenue	Kansas Settlement Road	3,134	2004	HPMS	7.3	12.0%
SR-189								
Arizona Department of Transportation	Nogales	International Border	SR-19B	16,690	2004	HPMS	3.7	4.9%
SR-260								
Arizona Department of Transportation	Payson	SR-87	Bear Street	19,461	2004	HPMS	3.0	7.1%
	Show Low	US-60	Show Low Lake Road	13,043	2004	HPMS	9.0	4.5%
	Eagar	C124	US-180	3,021	2004	HPMS	7.8	6.3%
	Pinetop-Lakeside	Lakeview Lane	Srawberry Hill Road	15,445	2004	HPMS	9.5	3.0%
SR-261								
Arizona Department of Transportation	Eagar	SR-273	M401+0.69	404	2004	HPMS	7.3	2.6%
SR-277								
Arizona Department of Transportation	Snowflake	Pulp Mill Road	SR-77	3,543	2004	HPMS	11.4	17.3%
SR-75								
Arizona Department of Transportation	Duncan	M381+0.26	US-70	2,215	2004	HPMS	2.3	4.7%
SR-77								
Arizona Department of Transportation	Snowflake	M363+0.50	Snowflake Town Boundary	10,285	2004	HPMS	4.0	8.4%
	Taylor	Taylor Town Boundary	M345+0.00	11,412	2004	HPMS	4.8	8.4%
	Show Low	M343+0.26	US-60	10,645	2004	HPMS	5.5	8.4%
SR-80								
Arizona Department of Transportation	Benson	I-10	Sunshine Lane	8,221	2004	HPMS	4.7	4.7%
	Tombstone	SR-82	Davis Road	3,734	2004	HPMS	6.8	4.7%
	Bisbee	Bisbee City Boundary	FST/Bisbee City Boundary	7,102	2004	HPMS	3.5	5.3%
	Douglas	Pirtleville Road	Leslie Canyon Road	6,671	2004	HPMS	1.5	9.3%
SR-82								
Arizona Department of Transportation	Patagonia	M020+0.50	M018+0.96	2,250	2004	HPMS	11.4	5.8%
	Nogales	Nogales Town Boundary	SR-19B	2,922	2004	HPMS	4.4	4.5%
SR-87								
Arizona Department of Transportation	Payson	Payson Town Boundary (North)	Payson Town Boundary (South)	23,451	2004	HPMS	15.1	5.1%

Agency	Community	From	To	AADT	Year	Source	Length (Miles)	Percent Trucks
SR-90								
Arizona Department of Transportation	Benson	I-10	Benson Town Boundary (South)	9,172	2004	HPMS	17.3	7.0%
	Huachuca City	Sierra Vista City Boundary	Howard Street	15,382	2004	HPMS	5.1	5.3%
	Sierra Vista	Hatfield Street	Moson Road	13,583	2004	HPMS	15.9	5.2%
SR-92								
Arizona Department of Transportation	Sierra Vista	SR-90	Coronado Memorial Road	21,833	2004	HPMS	13.6	4.8%
	Bisbee	Bisbee City Boundary	M355+0.11	8,332	2004	HPMS	14.7	4.4%
US-180								
Arizona Department of Transportation	St. Johns	C345	St. John City Boundary (South)	3,639	2004	HPMS	13.1	7.1%
	Springerville	Springerville Town Boundary (West)	Springerville Town Boundary (Southeast)	3,146	2004	HPMS	9.9	11.4%
	Eagar	Chiricahua Trail	Why Street	2,085	2004	HPMS	2.4	13.6%
US-191								
Arizona Department of Transportation	St. Johns	Commercial Street	St. John City Boundary (East)	1,262	N/A	HPMS	2.2	7.1%
	Clifton	Buro Way	M157-0.36	3,522	2004	HPMS	6.5	7.1%
	Safford	Safford City Boundary (Northeast)	Upper Solomonville Road	2,918	2004	HPMS	1.2	6.5%
US-60								
Arizona Department of Transportation	Show Low	Mogollon Rim Road	Show Low City Boundary (East)	12,516	2004	HPMS	10.8	10.8%
	Springerville	Springerville Town Boundary (West)	Springerville Town Boundary (East)	4,759	2004	HPMS	8.1	8.4%
US-70								
Arizona Department of Transportation	Pima	Pima Town Boundary (Northwest)	Alder Lane	6,400	2004	HPMS	7.0	5.6%
	Thatcher	Main Street	20th Avenue	13,001	2004	HPMS	3.6	6.5%
	Safford	20th Avenue	20th Street	12,468	2004	HPMS	5.4	6.5%
	Duncan	Wilson Street	7th Street	1,167	N/A	HPMS	1.5	5.6%

SOURCE: Highway Performance Monitoring System – FHWA, 2005

2.4.5 Existing and Proposed Major Bridges

ADOT provided a bridge inventory for the entire Eastern Framework Study Area, for the state routes. There are an estimated 877 bridge structures within the study of varying sizes and types. Bridge conditions are assessed by ADOT using Bridge Sufficiency Ratings as provided by the ADOT Bridge Section. The ranges of the ratings and what each rating means are as follows:

- <50 Eligible for Replacement
- 50-80 Eligible for Rehabilitation
- >80 Good Condition

Within the Eastern Framework Study Area the average sufficiency rating is approximately 86. Approximately 81 percent are rated in Good Condition, 18 percent are rated Eligible for Rehabilitation, and 1 percent are rated Eligible for Replacement. Eight bridges fall within the Eligible for Replacement category with a sufficiency rating of less than 50:

- SR 77 – Bridge at milepost 370.78
- SR 77 – Five Mile Draw Bridge (milepost 366.51)
- SR 191 – San Francisco River Bridge (milepost 163.3)
- SR 191 – Zuni River Bridge (milepost 331.6)
- SR 191 – Guthrie Bridge, Gila River (milepost 153.5)
- SR 191 – Cochise SPRR OP (milepost 62.8)
- SR 373 – Santa Cruz River Bridge
- I-10 – RCB EB & WB (milepost 304.7)

Currently the SR 191 – Cochise SPRR OP is the only bridge programmed to be replaced according to Arizona's 2008-2011 State Transportation Improvement Plan.

Mogollon Rim Focus Area

Within the Mogollon Rim Focus Area major bridges include locations where the Little Colorado River crosses SR 180, SR 191, and SR 260. This focus area also includes the Salt River Canyon Bridge (Apache Bridge), where US 60 crosses the Salt River, within the Salt River Canyon. This bridge has a main span of 186 feet.

Copper Country Focus Area

Major water features in the Copper Country Focus Area includes the San Francisco River the Upper Gila River and the San Simon River. These rivers cross US 70, US 191, and SR 75, with significant bridges at each location.

Within the Safford area there are four crossings of the Gila River providing access to major mining operations, agricultural areas, as well as access to the regional airport. These crossings include:

- East Sanchez
- North 8th Avenue
- Reay Lane
- Bryce Road

Cochise-Santa Cruz Focus Area

Within the Cochise-Santa Cruz Focus Area the San Simon River, the Santa Cruz River and the San Pedro River cross major roadways. I-10 is intersected by the San Simon River. The San Pedro River crosses I-10, SR 80, SR 82, SR 90, and SR 92. The Santa Cruz River crosses SR 82, just north of Nogles.

Table 2-25 shows the proposed bridge improvements within the Eastern Framework Study Area, as indicated in either ADOT's 5-year STIP program or local capital improvement programs.

Table 2-25 – Proposed Bridge Improvements

Project	Location	Type of Work	Year	Major Funding Sources	Total Cost (\$000)
ADOT 5-Year Program					
US 60	Show Low Creek Bridge #00383 (Navajo)	Construct Bridge	2008	GVT STP TOTAL	\$1,000 \$3,500 \$4,500
US 191	Cochise SPRR OP #2530 (Cochise)	Bridge Replacement	2008	STP BR TOTAL	\$750 \$2,500 \$3,250
US 191	Nahata'Dzil Road to Sanders TI (Apache)	Reconstruct 3 Bridges and Roadway	2009	STP HES TOTAL	\$15,254 \$1,528 \$16,782
Local TIPs/CIPs					
Lone Pine Dam Road Bridge	Lone Pine Dam Road (Navajo County)	Construct Bridge and Approaches	2008	FEDERAL	\$2,000
Obed Road Bridge	Obed Road (Navajo County)	Replacement	2009	FEDERAL	\$1,000
Scott Ranch Road	Penrod Road to SR-260 (Show Low)	Construct New Roadway with CG&S, New Bridge Across Show Low Creek	2009	FEDERAL	\$1,000
Tonto Creek Bridge	Tonto Creek (Gila County)	Construct Bridge	2008 to 2012	FEDERAL LOCAL TOTAL	\$2,960 \$592 \$3,552
Safford Bridge	Graham County	Construction	2008	FEDERAL LOCAL TOTAL	\$12,037 \$1,911 \$13,948

SOURCE: Arizona State Transportation Improvement Program 2008-2011, ADOT, 2007

2.4.6 Railroad Grade Crossings (state highways & principal arterials only)

According to ADOT's Communications and Community Partnerships (CCP) Division, there are 805 public at-grade railroad crossings within the state. There are 13 active, at-grade railroad crossings in the study area. Crossings along the state highway system within the study area were identified utilizing GIS.

Mogollon Rim Focus Area

There are two crossings over Apache Railway tracks north of Snowflake at SR-377 between Zeniff Road and SR-77 and at SR-277 around Malapai Road.

Copper Country Focus Area

There is an at-grade crossing over the Arizona Eastern Railway at US-70 parallel to Collidge Dam Road.

Cochise-Santa Cruz Focus Area

There are several crossings over the US-191 for Union Pacific Railroad and BNSF Railway lines. Union Pacific also crosses at SR-75, US-70, I-10 and SR-82.